

R E M A R K S

By the Office Action of August 14, 2002, the above-captioned invention was rejected under 35 USC 103(a), allegedly because the Admitted Prior Art in view of Davis rendered obvious the invention of Claims 1-5 and 8, and, allegedly because the Admitted Prior Art in view of Hatta *et al.* rendered obvious the invention of Claims 6, 7. The present amendment is believed to clearly rebut the *prima facie* case of obviousness, and thus to establish the non-obviousness of the invention of the Claims 1-8 of the above-captioned invention.

I. The Invention of the Claimed Combinations as a Whole of the Independent Claims 3, 5 and 8 Is Not Obvious over the Admitted Prior Art in View of Davis

Davis is concerned to enhance learning and self improvement in humans, but not to induce sleep, as is the above-captioned invention. Audiotapes, and a method for producing audiotapes, are disclosed having and producing soft, calming musical sounds and gently spoken messages at certain gravitating tempos intended, as clearly appears at column 2, lines 35-50, to enhance listening and learning; to relax, soothe and provide feelings of comfort, security and feeling of well-being; to encourage growth and health; reduce stress; build confidence, and offset negativity; inspire a productive, happy life; improve intuition and creativity; create positive attitudes/outlooks; and renew hopefulness and optimism in humans.

The certain gravitating tempos of the soft, calming musical sounds and gently spoken messages of the audiotapes, and audiotape producing method, of Davis are selected to produce Alpha and Theta brainwave states and the positive emotional and cognitive states aforementioned correlated therewith. "By reducing an individual's brainwaves to the Alpha and Theta (relaxation) levels, the individual is sufficiently relaxed for accelerated learning to occur. The mind achieves a restful alertness, wherein concentration is at its best" (Column 3, lines 55-60; emphasis supplied).

However, if listeners were indeed to be induced thereby to the state of deep relaxation and sleep by the certain gravitating tempos of music/speech of Davis, they would neither be alert nor concentrated, but rather asleep, with the result that they could not benefit from any of the aforementioned positive emotional or cognitive states. Thus no objective suggestion is present therein of a sleep mode and therefore no objective suggestion is present therein of a processor-implemented sound controller operative in sleep mode.

One of skill in the art accordingly would find no objective basis, either explicit or implicit, that would motivate one of skill in the art to combine the positive emotional states, but not sleep, inducing certain gravitating tempos of music/speech of the audiotapes, and audiotape producing method, of Davis, with the Admitted Prior Art, to provide the processor-implemented sound controller selectably operative in a sound relaxation and noise masking mode, and in a

sleep-induce mode, in response to user-input control selection of Claim 3, and, among other things, no objective basis, either explicit or implicit, that would motivate one of skill in the art to combine the positive emotional states, but not sleep, inducing certain gravitating tempos of the soft, calming musical sounds and gently spoken messages of the audiotapes, and audiotape producing method, of Davis, with the Admitted Prior Art, to provide the processor-implemented sound controller operative in the sleep-induce mode of Claim 3 to replay a sound selected for replay from memory continually for a first time interval so as to induce relaxation and mask noise and, for the duration of a second time interval following the first time interval, to repetitively select a slower replay rate, and to replay the selected sound continuously and without disrupting pauses at each slower replay rate for a third time interval, so that the progressively slower sound replay and the listener's biorhythms synergistically co-act, to induce a state of deep relaxation that aids the listener to fall asleep.

As to the invention of the claimed combination as a whole of Claim 5, there likewise is no objective basis, either explicit or implicit, that would motivate one of skill in the art to combine the positive emotional states, but not sleep, inducing certain gravitating tempos of the musical sounds/spoken messages of the audiotapes, and audiotape producing method, of Davis, with the Admitted Prior Art, to provide the processor-implemented sound controller selectably operative in sound relaxation and noise masking mode, and in sleep-induce mode, in response to

user-input control selection of the independent Claim 5, and, among other things, no objective basis, either explicit or implicit, that would motivate one of skill in the art to combine Davis with the Admitted Prior Art to provide the processor-implemented sound controller to replay any sound selected in accord with a preselected first sound pattern selected to continually replay said sample without disrupting pauses so as to soothe the listener and to mask noise in sound relaxation and noise masking mode, and to replay the same sound selected for replay in accord with a preselected second sound pattern different from said first sound pattern selected to induce a state of deep relaxation that aids the listener to fall asleep in said sleep-induce mode of the independent Claim 5.

With respect to Claim 8, likewise there is no objective basis, either explicit or implicit, that would motivate one of skill in the art to combine the positive emotional states, but not sleep, inducing certain gravitating tempos of the soft, calming musical sounds and gently spoken messages of the audiotapes, and audiotape producing method, of Davis, with the Admitted Prior Art, to provide the recited processor-implemented sound controller operative in a sleep-induce mode, of Claim 8, and, among others, no objective basis, either explicit or implicit, that would motivate one of skill in the art to combine Davis, with the Admitted Prior Art, to provide the recited processor-implemented sound controller operative in said sleep-induce mode to replay a sample of a prerecorded sound retrieved from memory in accord with a preselected sound pattern

selected to so modify perpetual replay of the sample selected as to induce a state of deep relaxation that aids the listener to fall asleep, of the independent Claim 8.

II. The Invention of the Claimed Combinations as a Whole of the Independent Claims 1 and 2 Is Not Obvious over the Admitted Prior Art in View of Davis

To provide his positive emotional state but not sleep inducing audiotapes, Davis, as can be seen in Figures 1 and 2, separately prepares the sound portion and message portion of his audiotapes, and then combines them in a final step, as can be seen in Figure 3. To provide the sound portion, Davis first prepares a musical composition instrumentalized with soft, low dynamic range instruments such as strings, bells and voices. The composition is then performed "live" by a musician on a digital keyboard with sampler and sequencer, and then fed into two tracks of an 8-track recorder. The keyboard is "manually" adjusted while being fed into the 8-track recorder so as to lower the tempo from about 60-120 beats, to about 40-60 beats, in hardly perceptible increments of about 2 beats per minute.

To provide the message portion, a script is developed in advance around a central theme such as learning, self-esteem, growing more healthy, etc., and a human "reader" reads it "live" into an open microphone, whereby the read script is fed into another two tracks of the 8-track recorder. The tempo of the script needs to match the gravitating tempo of the instrumentation.

A master tape is produced by combining the sound and message portions on the remaining four tracks of the 8-track recorder, adjusting the same for sound quality with volume/stereo adjustments, providing emphasis on the music, with the volume of the messages audible, but not overbearing.

From the master tape, individual audiotapes may be provided and separately sold for replay on standard audio equipment. Depending on which theme or positive emotional state the audiotape is intended to implement or induce, that state may be induced in a listener when the audiotape is replayed, which may result, for example, in improved self-esteem.

The listener's standard audio replay equipment, of course, replays the audiotape at constant speed.

However, there is no objective basis, either explicit or implicit, that would motivate one of skill in the art to combine either the "live" performance of instrumentals and "live" reading in a gentle voice of previously prepared scripts and "manual" recordation of the same on an 8-track recorder at certain correlated tempos gravitating from about 60-120 beats, to about 40-60 beats, in hardly perceptible increments of about 2 beats per minute intended to induce positive emotional and cognitive states in awake subjects of Davis, or the positive emotional state but not sleep inducing certain gravitating tempos of music/speech of the audiotapes of Davis, that are only to be replayed at the constant replay speed of standard audio equipment, with the Admitted

Prior Art, to provide the digital sound relaxation and sleep-inducing machine including a processor-implemented sound controller operative in sleep-induce mode to replay any sound sample selected for a first time interval the whole number of times the sample duration at its record rate is contained within the first time interval, and to replay the sound sample selected for a second time interval that consists of a certain number of third time intervals during each of which the sound sample selected is progressively replayed at another slower rate the whole number of times the selected sample duration, factored by the ratio of the record and each slower rate, is contained within each said third time interval of said sound controller operative in said sleep induce mode of Claim 1, or the method of playing a prerecorded sound to induce a deep relaxation state that helps a listener to fall asleep of method Claim 2, that includes the steps of storing a sample of previously recorded sound lasting for a certain duration at its record rate in digital memory, repetitively playing the sound sample for a first time interval greater than said duration at its record rate the whole number of times said duration is contained within the first time interval, and the step of replaying the sound sample a certain number of third time intervals of a second time interval following the first time interval, during each of which third time intervals the sound sample is replayed at another, slower rate, the whole number of times that the sample duration, factored by the ratio of said record and each another slower rate, is contained within each said third time interval of the sleep inducing sound playing method of Claim 2.

III. The Invention of the Claimed Combinations as a Whole of the Independent Claim 6 Is Not Obvious over the Admitted Prior Art in View of Hatta et al.

Hatta *et al.* is concerned to provide simplified selection of motivational alarm messages in a timepiece. Three motivational alarm messages are provided, "study," "sleep," and "wake-up," each of which includes music and voice components. For example, the "study" alarm message would be "chime, it's high time to study."

The selection between the three alarm messages is provided by a slide switch. Time set buttons allow to set the hour and minute and an alarm arming button enables to activate/deactivate any selected alarm message, as set by the slide, at any selected alarm time, as set by the hour/minute buttons.

However, there is no objective basis, either explicit or implicit, that would motivate one of skill in the art to combine the user simplified interface of Hatta *et al.* employing a slide switch enabling simplified user selection among three prerecorded message alarms in a timepiece with the Admitted Prior Art to provide, among other things, the recited sounds of a library of digital sounds individually playable selectively either in sound relaxation or alarm wake modes by a processor-implemented sound controller operative in sound relaxation and alarm modes of Claim 6. In both the Admitted Prior Art and in Hatta *et al.*, single sounds and alarm message sounds are available for individual selection for replay only as single sounds or message alarm sounds,

Appl. No. 09/159, 520
Amendment dated September 2, 2005
Reply to Office Action of 08/14/2002

but no objective suggestion is present therein of reassigning sounds between relaxation and wake up modes as in the claimed combination as a whole of independent Claim 6.

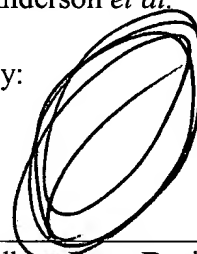
Since for the foregoing reasons the independent claims are believed to be in allowable condition, further discussion of the independent claims, and of their dependents, is believed to be rendered moot.

Early allowance of the entire case is for the foregoing reasons now believed to be in order and such action is hereby respectfully requested. The favor of a telephone call to help advance the prosecution and allowance of the instant application is most cordially invited.

Respectfully submitted,

Anderson *et al.*

By:

A handwritten signature in black ink, appearing to be "Albert Peter Durigon", written over a horizontal line.

Albert Peter Durigon
Reg. No. 30,049

Law office of A.P. Durigon
20 Eustis Street
Cambridge, MA 02140
617-354-7330